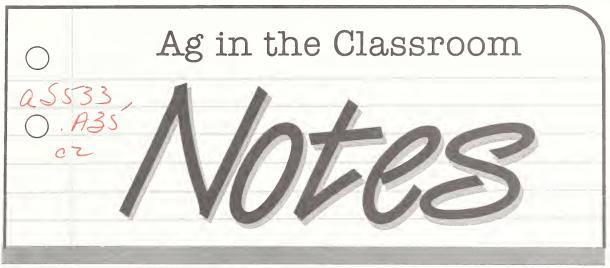
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A bi-monthly newsletter for the Agriculture in the Classroom program. Sponsored by the U.S. Dept. of Agriculture to help students understand the important role of agriculture in the United States economy. For information, contact: Shirley Traxler, Director, Room 317-A,Administration Bldg.,USDA, Washington, D.C. 20250-2200. 202/447-5727

United States Department of Agriculture



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A Summer "Growing Season" for AITC Nebraska

Teachers are often too busy during the school year to devote time to planning new curriculum. So summer workshops offer an ideal way to give teachers the time to reflect, plan, and develop units and activities on agriculture. This summer, Nebraska's AITC program sponsored a workshop called "Creative Agricultural Activities for the Classroom." To reach teachers in all parts of the state, sessions were held at

Wayne State College, the University of Nebraska - Lincoln, and the University of Nebraska - Scottsbluff.

The first part of the course provided teachers with a series of field experiences designed to introduce them to many different facets of Nebraska agriculture. At the session held on the Lincoln campus of the University of Nebraska, for example, participants traveled continued on page 6.

Kansas Workshops Involve, Inform Teachers

Two summer workshops provided Kansas teachers with an opportunity to see agriculture firsthand ... and then develop activities that would share what they'd learned with with their students. "In both classes, we toured a farm and several agribusinesses," said Becky Koch, KFAC administrator. "The teachers experienced flour milling, meat processing, horticulture, forestry, and a lot more."

Teachers enrolled in the workshops also learned about soil conservation, books about agriculture, and other ag resources available to teachers. A university educator met with each group to share ideas about teaching creatively and integrating curriculum.

Teachers developed units that integrated an agricultural topic into their teaching. Subjects ranged from wheat history to agricultural art to continued on page 6



Teachers learned about flour milling from Dr. Dale Eustace at the KSU mills

From the Director

Dear Readers.

I've had the pleasure of meeting many teachers this summer. Some have stopped by my office here at the Department of Agriculture and I've met others at summer workshops. The common thread in their conversations with me was how delighted they are to learn more about agriculture; how surprised they are to discover the complexities of our American agriculture system; and how enthusiastic they are about their plans to integrate agriculture into the subjects they teach.

We are fortunate to have so many dedicated and creative teachers seeking new ideas and approaches to educating our students.

Yours truly,

/ Shirley Traxler

Ohio: Students Learn about Ag Today . . . and Tomorrow

For many U.S. students, a generation or two away from the farm, agriculture is viewed as part of the past. But an Ohio teacher helped her students recognize that agriculture was also part of their economic future.

She included a unit on nutrition as well as lessons on Ohio agriculture. A mini-grant made it possible to purchase additional materials, including some toy farm implements to give her students real "hands-on" experience.

A Farm Day Tour helped the students tie together what they had learned about nutrition and agriculture. With the cooperation of Paulding County Extension Agent Sue Shockey, a day-long tour took students to a variety of agribusinesses located within the school district. They visited a grain farm, a poultry farm a dairy farm, a hog farm, a beef cattle farm, and a local honey farm.

In addition, the tour included stops at a grain terminal, a cannery, and a butcher shop. For lunch, students made use of what they had learned about agriculture and

nutrition as they prepared their own egg omelet, compliments of an area poultry farm.

Students not only heard their teachers talk about the importance of agriculture to their local economy — they saw it for themselves. And they recognized the vital role agriculture plays in their community today ... and in the future.



Jan Priest's fourth graders prepared their own omelets after studying both nutrition and agriculture.

Jan Priest is a fourth grade teacher at Grover Hill Elementary School in Paulding, Ohio. She's also a farmer's wife with a strong personal interest in helping students develop an understanding of agriculture. After attending an AITC workshop hosted by Vantage Vocational School, Jan decided to integrate agriculture into her curriculum.

Spotlight

Prairie - Coast Exchange Program Brings Washington Students Together

Fall City and Washtucna, Washington, are separated by more than distance. Fall City, on the Washington coast, is a city school district. Washtucna is a rural district in the eastern part of the state. But thanks to an exchange trip planned by Fall City teachers Don McConkey

and Don Gilmore, students in the two schools learned they had plenty in common.

After participating in a 1988 summer AITC workshop, McConkey and Gilmore looked for ways to help their students learn about agriculture in the state. They contacted Janet Hollenback, a teacher in Washtucna, to set up an exchange program. Throughout the year, students and teachers in each school began preparing for a spring exchange program.

In May, 14 Washtucna students traveled 300 miles to

Fall City, in suburban Seattle. Accompanied by Fall City students, they visited the Seattle Aquarium. They learned about a variety of sea animals, but the flashlight fish, whose eyes glow in the dark, was a particular favorite.

The following day, the students took a ferry to the Marine Science Center in Poulsbo. There they studied plankton, collected samples of marine life, and viewed marine plants and animals under a microscope. The next month, sixty Falls City students made a return trip to Washtucna. "We decided to invite the students

to visit our farms to see how bread begins," said Hollenback. In the evening, students saw a sheep and hog farm and then visited the Grain Growers co-op to see how wheat is stored, sold, and shipped. The Adams County Cattle-Women provided hamburger for a cookout.



Students from Washtucna, Washington, learn about marine life as part of a prairie-coast exchange.

The teachers have already begun planning another exchange for the 1989-90 school year. In a week-long workshop, students will learn about forest ecology, prairie ecology, and marine biology.

After the exchange, Washtucna students were asked to evaluate what they'd learned. All agreed they'd made new friends. Stacie Baumann noted that because there were so many educational things to see in so little time, "I wish we could do it again. It was," she concluded, "truly neat and awesome.

Children "Read to Feed" in Massachusetts

"We get the money and buy stuff. Send a rabbit for meat. Send a chicken for eggs," explained

Annie, a seven-year-old second grade student at Bancroft School in Worcester, Massachusetts.
Annie and 197 classmates raised \$6,051 in two months by participating in the "Readto-Feed" program.

Sponsored by Heifer
Project International, Read-toFeed raises funds to buy
livestock to give away to poor
farmers and villagers all over the
world. For more than 40 years, Heifer
Project International has promoted animal
agriculture in developing countries.

School librarian Jan Cellucci at Bancroft School felt the Read-to-Feed project was an ideal way to celebrate The Year of the Young Reader. While encouraging students to read, it would also help students take direct action to combat world hunger.

To introduce the idea to Bancroft students, two Peace Corpsmen training at Heifer Project

brought a menagerie of animals from the farm to the school auditorium. Celucci made world hunger her topic at the weekly library hour. She also sent a letter home to parents explaining the idea: students who wanted to participate would ask family and

friends to sponsor them, paying a specified amount for each book the child read.

The results astonished the adults — of 198 elementary school students enrolled at the school, 198 signed up to read. And read they did — an average of 30 books per pupil. Some students read more than 100 books.



Four Bancroft School students led the way in the Read-to-Feed project.

John P. Brassard - The Worcester Telegram and Gazette

Tiny TV Camera Spies on Plant Roots

Once the children had raised the money, they decided where to spend it. They studied dozens of Heifer Projects, settling finally upon the Karen Dairy Project in Thailand. Their contribution, they learned, would fund almost all the cost of building a cattle shed and buying a herd of goats for a Thai village.

Every farm animal given to a poor farmer carries with it just one obligation: to multiply and pass on. The firstborn offspring of a donated animal must be given to a needy neighbor. In addition to giving away livestock, Heifer Project trains villagers in animal husbandry and runs public education programs in this country and overseas on the root causes of hunger.

The students, too, learned something about responsibility. "These children know the difference between asking their parents for money to donate to charity and doing something themselves to earn that money," Celucci said.



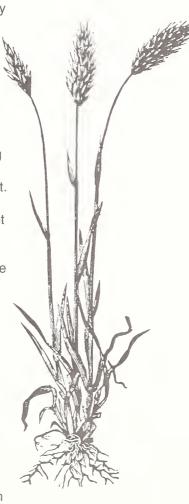
It may not have the beat of a rock video, but a tiny TV camera is producing "root videos" that are becoming a hit with scientists who study the effects of drought on plants. Now in use by USDA's Agriculture Research Service, the new system is revolutionizing the way scientists learn about plant development.

In the past, scientists could study a plant's root system in one of two ways — by digging it up or by peering through the glass of a room-sized cellar called a rhizotron.

But the new portable video system, named a minirhizotron, makes it possible to see how a plant's roots develop over an entire growing season. A clear plastic tube is inserted into the ground. Then scientists attach a pocket-sized color video camera to a pipe and lower it through the tube. From above, they watch the roots on a TV monitor.

Eventually, the research should make it possible for plant breeders to custom-order root systems. That in turn would allow for development of crops that tolerate drought and other stresses.

ARS researchers are using minirhizotrons to study roots of crops as varied as corn, soybeans, and fruit trees in states such as Georgia, Illinois, Minnesota, North Dakota, Texas, and West Virginia. Other scientists are using the video cameras in Arkansas, California, Florida, and Michigan.



Growing Season

continued from page 1

more than 780 miles in five days. They spent one night with a host ranch family in the Sand Hills area — some teachers even rode horses.

The course also included visits to production sites, processing facilities, agricultural marketing organizations, conservation activities, and

teachers could draw on activities developed by everyone in the workshop. The activites are kept on file at the state AITC office, providing resources for other teachers.

Teachers received three hours of graduate credit for the course, which is designed for

teachers from
preschool through
high school. "It's
a real challenge
to try to meet
those diverse
needs," says
Ellen Hellerich,
Associate Director
of the Nebraska
AITC Program.

Hellerich
begins and ends
each course the
same way — by
asking teachers to
define the word
"agriculture." "At
the beginning of
the course," she
says, "teachers
almost always
equate 'agricul-

ture' with 'farming.'" But by the end of the course, she says, "they have a better understanding of the diversity of Nebraska agriculture — an understanding they'll pass on to their students."



Teacher Jill McCormick explains how she will integrate her project into her regular curriculum.

distribution centers. Following the field work, participants returned to the university, where they developed individual projects designed to integrate agriculture into their existing curriculum. Materials were then duplicated, so

Kansas Workshops

continued from page 1

plant science. A unit on sunflowers, for example, integrated math, science, and even a lesson on Van Gogh. An English teacher developed a Jeopardy game to test his students' knowledge of what he called "agriliterature." (A typical answer and question: A. Black author of *Not Without Laughter*, a novel about black life in a small Kansas town. Q. Who is Langston Hughes?)

All projects were reviewed by other teachers and agricultural experts. They will be disseminated to teachers across the state.

The Kansas City session was designed to help teachers in an urban school district find ways to make agriculture meaningful for their students. Tours of Kansas City agricultural facilities gave teachers an idea of the resources available in the city.

Teachers selected to participate in the course received a scholarship to cover tuition and some expenses. Donations from ag organizations, agribusinesses, and foundations supported the scholarships.

The workshops were co-sponsored by Kansas State University and the Kansas Foundation for Agriculture in the Classroom. Two-week sessions were held in Kansas City and on the campus of Kansas State University in Manhattan.

Farm-City Festival Offers Nevada City Kids a Taste of Farm Life

Students came from as far away as Lake Tahoe, California, to visit the Washoe County Farm-City Festival in Reno this year. The three-day festival is designed to teach tomorrow's leaders about farming and ranching.

The festival has broken attendance records every year since it was started seven years ago, according to Ben Damonte, chairman of the Nevada AITC task force that planned the festival.

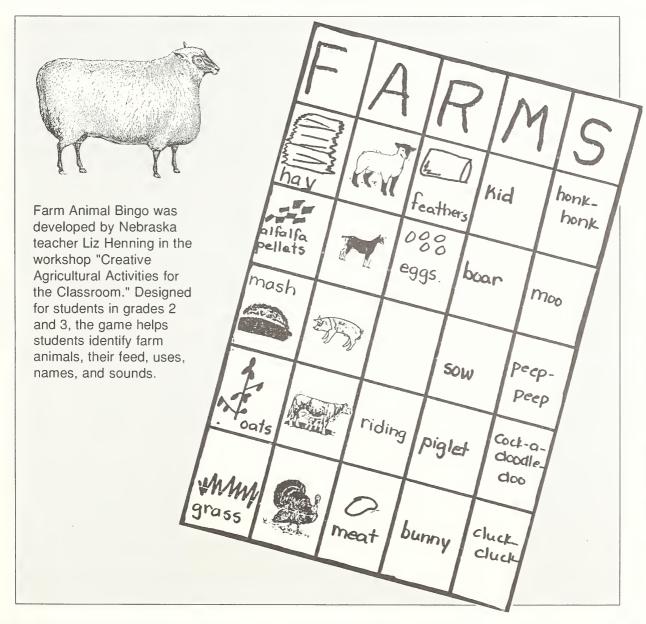
"Students came in waves," Damonte said — whole classes at a time. They moved to various stations spread around the Great Basin Adventure theme park. In some sites, students

petted animals. At others, they saw feeds and crops. Other stations demonstrated other aspects of agriculture.

Along the way, agricultural spokesmen told students about how products are grown on the farm and how they are processed into food and fiber. "Most urban youngsters (and even some teachers) don't know much about agriculture," Damonte said.

The festival planning task force includes representatives from all agricultural groups in the state, the University of Nevada, government agencies, and the Washoe County School District.

A Game Card Showing Farm Animal Bingo





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